

WHAT IS CLAIMED IS:

1. An oligonucleotide comprising SEQ ID NO.:8, wherein the oligonucleotide length is from 25 to 100 nucleotides.
2. The oligonucleotide of claim 1, wherein the residue at position 24 of SEQ ID NO:8 is N⁶-alkyl-deoxyadenosine.
3. The oligonucleotide of claim 2, wherein the residue at position 24 of SEQ ID NO.:8 is N⁶-methyl-deoxyadenosine.
4. The oligonucleotide of claim 1, wherein the residue at position 25 of SEQ ID NO.:8 is N⁶-alkyl-deoxyadenosine.
5. The oligonucleotide of claim 4, wherein the residue at position 25 of SEQ ID NO.:8 is N⁶-tert-butyl-benzyl-deoxyadenosine.
6. The oligonucleotide of claim 2, wherein the residue at position 25 of SEQ ID NO.:8 is N⁶-alkyl-deoxyadenosine.
7. The oligonucleotide of claim 1, wherein the residue at position 24 of SEQ ID NO.:8 is N⁶-methyl-deoxyadenosine and the residue at position 25 of SEQ ID NO.:8 is N⁶-tert-butyl-benzyl-deoxyadenosine.
8. The oligonucleotide of claim 1, wherein the oligonucleotide consists of SEQ ID NO:8.
9. An oligonucleotide comprising SEQ ID NO.:15, wherein the oligonucleotide length is from 25 to 100 nucleotides.
10. The oligonucleotide of claim 9, wherein the oligonucleotide comprises SEQ ID NO:74.
11. The oligonucleotide of claim 9, wherein the residue at position 23 of SEQ ID NO.:15 is N⁶-alkyl-deoxyadenosine.
12. The oligonucleotide of claim 9, wherein the residue at position 23 of SEQ ID NO.:15 is N⁶-alkyl-deoxyadenosine.

13. The oligonucleotide of claim 10, wherein the residue at position 25 of SEQ ID NO.:74 is N⁶-alkyl-deoxyadenosine.

14. The oligonucleotide of claim 10, wherein the residue at position 25 of SEQ ID NO.:74 is N⁶-tert-butyl-benzyl-deoxyadenosine.

15. The oligonucleotide of claim 9, wherein the oligonucleotide consists of SEQ ID NO:15 or SEQ ID NO:74.

16. An oligonucleotide comprising SEQ ID NO.:28, or the complement thereof, wherein the oligonucleotide length is from 28 to 100 nucleotides.

17. The oligonucleotide of claim 16, wherein the oligonucleotide comprises a detectable moiety.

18. The oligonucleotide of claim 17, wherein said detectable moiety is a fluorescent moiety.

19. The oligonucleotide of claim 18, wherein said fluorescent moiety is selected from the group consisting of fluorescein-family dyes, polyhalofluorescein-family dyes, hexachlorofluorescein-family dyes, coumarin-family dyes, rhodamine-family dyes, cyanine-family dyes, oxazine-family dyes, thiazine-family dyes, squaraine-family dyes, chelated lanthanide-family dyes, and BODIPY®-family dyes.

20. The oligonucleotide of claim 18, wherein said fluorescent moiety is 6-carboxyfluorescein.

21. The oligonucleotide of claim 18, wherein the oligonucleotide further comprises a quencher moiety.

22. The oligonucleotide of claim 21, wherein said quencher moiety is selected from the group consisting of fluorescein-family dyes, polyhalofluorescein-family dyes, hexachlorofluorescein-family dyes, coumarin-family dyes, rhodamine-family dyes, cyanine-family dyes, oxazine-family dyes, thiazine-family dyes, squaraine-family dyes, chelated lanthanide-family dyes, BODIPY®-family dyes, and non-fluorescent quencher moieties.

23. The oligonucleotide of claim 22, wherein the non-fluorescent quencher moiety is selected from the group consisting of BHQ™-family dyes, Iowa Black™, or Dabcyl.

24. The oligonucleotide of claim 21, wherein the quencher moiety is Cy5™.

25. The oligonucleotide of claim 21, wherein the fluorescent moiety is positioned relative to the quencher moiety such that a photon emitted by the fluorescent moiety is absorbed by the quencher moiety when the oligonucleotide is intact, but fragmentation of the oligonucleotide by an enzyme with 5' nuclease activity separates the fluorescent moiety from the quencher moiety such that a photon emitted by the fluorescent moiety can be detected.

26. The oligonucleotide of claim 21, wherein the quencher moiety is attached to the 5' end of the oligonucleotide and the fluorescent moiety is attached to a residue that is within 10 residues of the 5' end of the oligonucleotide.

27. The oligonucleotide of claim 16, wherein the sequence of the oligonucleotide consists of SEQ ID NO.:28, or the complement thereof.

28. A kit for the detection of a nucleic acid of a member of the Japanese encephalitis virus serogroup, comprising:

- a) a first oligonucleotide that comprises SEQ ID NO.:8;
- b) a second oligonucleotide that hybridizes to a nucleic acid of SEQ ID NO.:9 or a complement thereof; and
- c) a detectably-labeled third oligonucleotide that hybridizes to a nucleic acid of SEQ ID NO.:16, or the complement thereof.

29. The kit of claim 28, wherein the residue at position 24 of SEQ ID NO.:8 is N⁶-alkyl-deoxyadenosine.

30. The kit of claim 29, wherein the residue at position 24 of SEQ ID NO.:8 is N⁶-methyl-deoxyadenosine.

31. The kit of claim 28, wherein the residue at position 25 of SEQ ID NO.:8 is N⁶-alkyl-deoxyadenosine.
32. The kit of claim 31, wherein the residue at position 25 of SEQ ID NO.:8 is N⁶-tert-butylbenzyl-deoxyadenosine.
33. The kit of claim 28, wherein the residue at position 24 of SEQ ID NO.:8 is N⁶-methyldeoxyadenosine and the residue at position 25 of SEQ ID NO.:8 is N⁶-tert-butyl-benzyldeoxyadenosine.
34. The kit of claim 28, wherein the second oligonucleotide comprises SEQ ID NO.:15.
35. The kit of claim 34, wherein the residue at position 23 of SEQ ID NO.:15 is N⁶-alkyl-deoxyadenosine.
36. The kit of claim 34, wherein the residue at position 23 of SEQ ID NO.:15 is N⁶-alkyl-deoxyadenosine.
37. The kit of claim 34, wherein the second oligonucleotide comprises SEQ ID NO.:74.
38. The kit of claim 37, wherein the residue at position 25 of SEQ ID NO.:74 is N⁶-alkyldeoxyadenosine.
39. The kit of claim 37, wherein the residue at position 25 of SEQ ID NO.:74 is N⁶-tertbutyl-benzyl-deoxyadenosine.
40. The kit of claim 28, wherein the detectably-labeled third oligonucleotide comprises SEQ ID NO.:28, or the complement thereof.
41. The kit of claim 40, wherein the detectably-labeled third oligonucleotide comprises a fluorescent moiety.
42. The kit of claim 41, wherein the detectably-labeled third oligonucleotide further comprises a quencher moiety.

43. The kit of claim 41, wherein the fluorescent moiety is selected from the group consisting of fluorescein-family dyes, polyhalofluorescein-family dyes, hexachlorofluorescein-family dyes, coumarin-family dyes, rhodamine-family dyes, cyanine-family dyes, oxazine-family dyes, thiazine-family dyes, squaraine family dyes, chelated lanthanide-family dyes, and BODIPY®-family dyes.

44. The kit of claim 41, wherein the fluorescent moiety is 6-carboxyfluorescein.

45. The kit of claim 42, wherein the quencher moiety is selected from the group consisting of fluorescein-family dyes, polyhalofluorescein-family dyes, hexachlorofluorescein-family dyes, coumarin-family dyes, rhodamine-family dyes, cyanine-family dyes, oxazine-family dyes, thiazine-family dyes, squaraine family dyes, chelated lanthanide-family dyes, BODIPY®-family dyes, and nonfluorescent quencher moieties.

46. The kit of claim 45, wherein the non-fluorescent quencher moiety is BHQ™-family dyes, Iowa Black™, or Dabcyl.

47. The kit of claim 42, wherein the quencher moiety is Cy5™.

48. The kit of claim 28, additionally comprising a thermostable DNA polymerase.

49. The kit of claim 48, wherein the thermostable DNA polymerase is selected from the group of *Carboxydotherrnus hydrogenformans* DNA polymerase, *Thermosipho africanus* DNA polymerase, *Bacillus pallidus* DNA polymerase, *Thermus* species Z05 DNA polymerase, *Thermus aquaticus* DNA polymerase, *Thermus thermophilus* DNA polymerase, *Thermatoga maritima* DNA polymerase, *Thermatoga neapolitana* DNA polymerase, and *Thermus* sps17 DNA polymerase.

50. The kit of claim 28, additionally comprising instructions for detecting a nucleic acid of a member of the Japanese encephalitis virus serogroup.

51. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide comprising SEQ ID NO.:8, wherein the oligonucleotide length is from 25 to 100 nucleotides.

52. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide comprising SEQ ID NO.:15 or SEQ ID NO.:74, wherein the oligonucleotide length is from 25 to 100 nucleotides.

53. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide comprising SEQ ID NO.:28, or the complement thereof, wherein the oligonucleotide length is from 28 to 100 nucleotides.

54. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide consisting of SEQ ID NO.:8.

55. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide consisting of SEQ ID NO.:15 or SEQ ID NO.:74.

56. A composition for detecting a member of the Japanese encephalitis virus serogroup comprising a buffer and an oligonucleotide wherein the sequence of the oligonucleotide consists of SEQ ID NO.:28, or the complement thereof.